RINGKASAN

Usaha kuliner merupakan salah satu penyumbang sampah makanan di Indonesia, salah satunya adalah sampah sisa kuliner pecel lele Lamongan. Larva BSF (*Hermetia illucens* L) memiliki kemampuan untuk mendegradgasi sampah organik termasuk sisa makanan dengan memanfaatkan nutrisi pada sampah orgaik menjadi sumber energi.Tujuan dari penelitian ini adalah untuk mengetahui performa dan efektivitas lalat BSF dalam mendegradasi sampah sisa makanan hasil usaha kuliner Lamongan.

Metode penelitian adalah eksperimental menggunakan rancangan acak lengkap dengan 3 perlakuan, berupa pakan dengan ukuran yang berbeda, yaitu 60 mg/Larva/hari, 70 mg/larva/hari, dan 80 mg/larva/hari , masing-masing perlakuan diulang 7 kali. Hasil analisis ragam menunjukkan hasil yang tidak signifikan terhadap konsumsi pakan, *Waste Reduction Index, Efficiency of Conversion of Digested Feed* dan *Survival Rate.* Hasil analisis ragam terhadap biomassa larva menunjukkan hasil yang signifikan. Hasil penelitian menunjukkan bahwa konsumsi pakan tertinggi pada perlakuan 70 mg/larva/hari yaitu 65,86% dan terendah pada perlakuan 60 mg/larva/hari yaitu 65,25%. *Waste Reduction Index* tertinggi pada perlakuan 70 mg/larva/hari yaitu 3,136 dan terendah pada perlakuan 60 mg/larva/hari, yaitu 3,107. Peningkatan biomassa larva tertinggi pada perlakuan 80 mg/larva/hari dan terendah ada perlakuan 60 mg/larva/hai. *Efficiency of Conversion of Digested Feed* tertinggi pada perlakuan 60 mg/larva/hari yaitu 37,34% dan terendah pada perlakuan 70 mg/larva/hari yaitu 32,193%. *Survival Rate* tertinggi pada perlakuan 80 mg/larva/hari yaitu 89,714% sedangakan terendah pada perlakuan 60 mg/larva/hari yaitu 85,714%. Larva BSF mampu merduksi sampah hasil kuliner Lamongan paling efektif pada perlakuan 70 mg/larva/hari dan memiliki efektivitas yang tinggi dalam mencerna pakan pada perlakuan 60 mg/larva/hari.

Kata Kunci :*Biodegradator,Efektifitas, Larva Hermetia illucens L, Limbah usaha Lamongan, dan Performa.*

SUMMARY

Culinary business is one of the contributors to food waste in Indonesia, one of it is the culinary waste of pecel lele Lamongan. BSF larvae (Hermetia illucens L) have the ability to degrade organic waste including food waste by utilizing nutrients in organic waste as an energy source. The purpose of this study was to determine the performance and effectiveness of BSF in degrading food waste from the Lamongan culinary business.

The research method was experimental using a completely randomized design with 3 treatments, in the form of feed with different sizes, namely 60 mg/larvae/day, 70 mg/larvae/day, and 80 mg/larvae/day, each treatment was repeated 7 times. The results of the analysis of variance showed insignificant results on feed consumption, Waste Reduction Index, Efficiency of Conversion of Digested Feed and Survival Rate. Analysis of variance on larval biomass showed significant results. The highest feed consumption was at the treatment of 70 mg/larvae/day, which was 65.86% and the lowest was at the treatment of 60 mg/larvae/day, which was 65.25%. The highest Waste Reduction Index was at the treatment of 70 mg/larvae/day, which was 3.136 and the lowest was at the treatment of 60 mg/larvae/day, which was 3.107. The highest increase in larval biomass was at the treatment of 80 mg/larvae/day and the lowest was at the treatment of 60 mg/larvae/ha. The highest Efficiency of Conversion of Digested Feed was at the treatment of 60 mg/larvae/day, which was 37.34% and the lowest was at the treatment of 70 mg/larvae/day, which was 32.193%. The highest survival rate was at 80 mg/larvae/day, 89.714%, while the lowest was at 60 mg/larvae/day at 85.714%. BSF larvae were able to reduce waste from Lamongan culinary products most effectively at treatment of 70 mg/larvae/day and had high effectiveness in digesting feed at treatment of 60 mg/larvae/day.

Keywords: Biodegradator, Effectiveness, *Hermetia illucens* L Larva, Lamongan Business Waste, and Performance.